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ABSTRACT

This module on the zig zag machine, one in a series dealing with industrial sewing machines, their attachments, and operation, covers one topic: performing special operations on the zig zag machine. These components are provided: an introduction, directions, an objective, learning activities, student information, a student self-check, and a check-out activity. An instructor's final checklist for evaluating the students' performance is attached. (YLB)

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MODULE 38

# THE

# ZIG ZAG

# MACHINE

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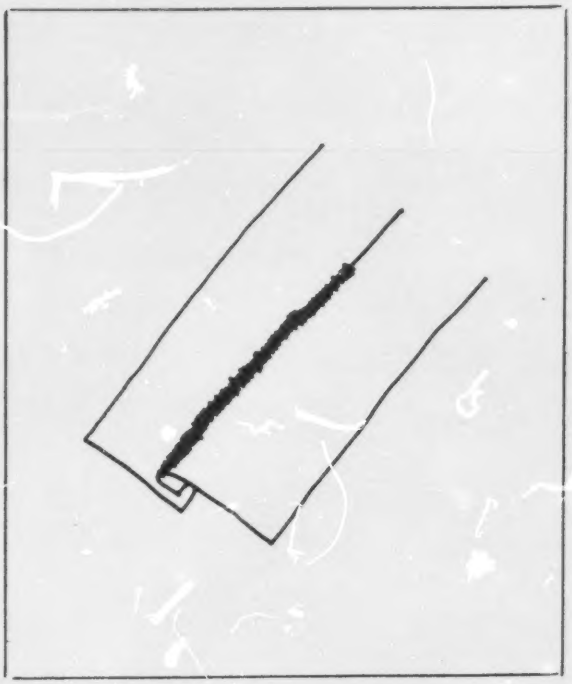

PERFORMING SPECIAL OPERATIONS ON THE ZIG ZAG MACHINE

## INTRODUCTION

The zig zag machine has a single needle and produces a locked stitch. The machine is also self-oiling and power driven. The movement of the needle from right to left forms a zig zag pattern. Some zig zag machines produce a chain stitch which will ravel easily.

In this module, you will learn to operate the zig zag machine.

## DIRECTIONS

Read the Objective. If you think you can accomplish this Objective now, turn to the Check-Out Activity and follow the instructions.

If you feel you are not able to accomplish this Objective now, look at the Learning Activities. Begin the Learning Activities and as soon as you feel you are ready, turn to the Check-Out Activity and follow the instructions.

## OBJECTIVE

Given a zig zag machine, thread, snips, and fabric, stitch a zig zag pattern according to the instructor's specifications.

## LEARNING ACTIVITIES

1. READ Student Information, THE ZIG ZAG MACHINE.
2. COMPLETE Student Self-Check, THE ZIG ZAG MACHINE.
3. VIEW a teacher demonstration on using the zig zag machine.
4. TURN to the Check-Out Activity and follow the instructions.

## STUDENT INFORMATION

### Zig Zag Machine

The zig zag machine has a single needle and produces a locked stitch. This machine is self-oiling which means that the machine is sitting in a pan of oil. The oil flows continuously through the machine.

The operation of this machine is as simple as the single needle lockstitch machine. The only difference is that the needle moves from right to left on the zig zag machine while on the single needle lockstitch machine the needle moves in a straight line (Figure 1).

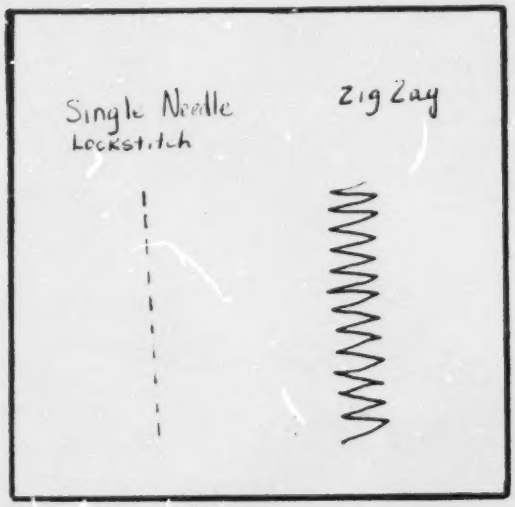


Figure 1

The zig zag machine is threaded in a way similar to the single needle lockstitch machine. The bobbin case, however, is slightly different (Figure 2).

Because the stitching is made in a zig zag pattern, this machine is slower than the single needle lockstitch.

Figure 2

The zig zag stitch is often used to close braid and the bottom of pockets. This process is referred to as a hidden stitch.

The purpose of the zig zag machine can also be to sew one fabric on the top of the other as in an applique. The top fabric does not have to be turned under since it will not ravel (Figure 3).

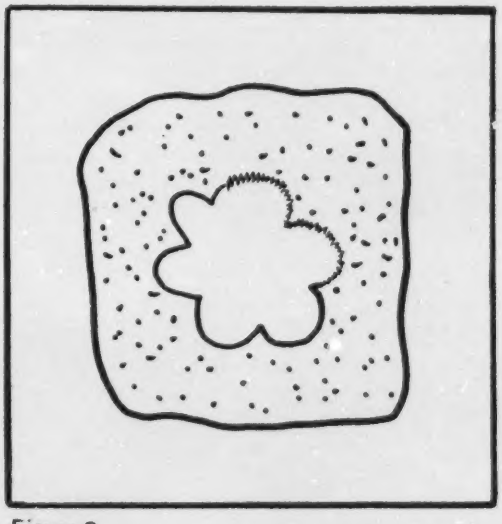

Figure 3

When turning a corner, the needle in the zig zag machine must be at its highest point. This is exactly opposite from the single needle lockstitch machine where the needle must be all the way down. The operator must then push the kneelift at the same time.

The width of the zig zag stitch can be adjusted according to manufacturer's specifications. The width of the seam is referred to as the bight.

Actually, the stitch on the zig zag machine can be changed in two directions, the length and the width (or bight). The long stitches make a wide seam while the short stitches make a narrow seam (Figure 4).

Figure 4

To change the length of the stitches, press the feed reverse lever down and hold it in center position. Then turn the feed regulating dial to the right to shorten the stitch or to the left to lengthen the stitch. Numbers on the dial are reference points and do not relate to stitches per inch (Figure 5).

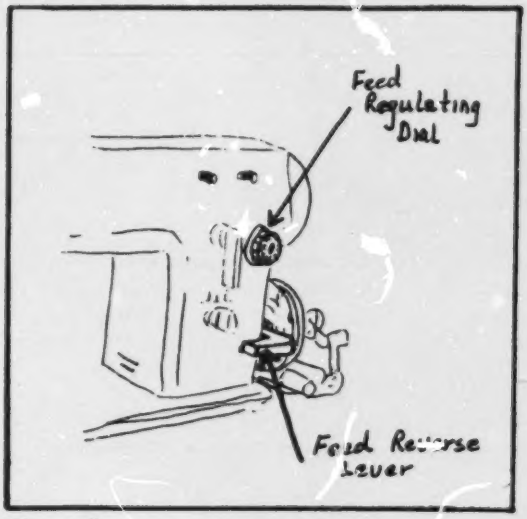


Figure 5

Follow these steps to change the width (bight) of the stitches.

1. Lift needle out of fabric
2. Loosen or tighten thumb screws for narrower or wider stitches
3. Turn regulating lever as far as it will go
4. Retighten thumb screws. Refer to Operator's Manual for more specific directions (Figure 6).

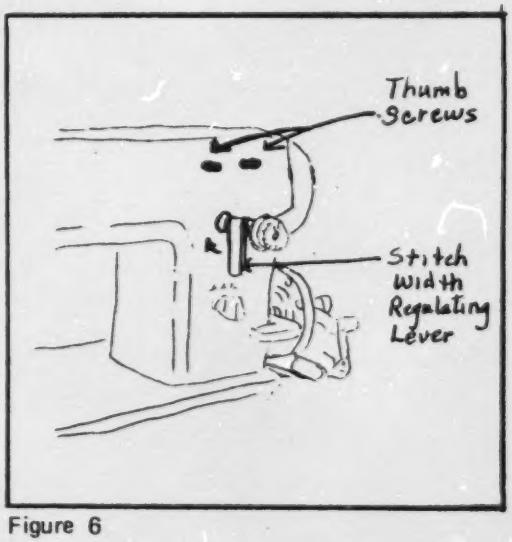


Figure 6

## STUDENT SELF-CHECK

Write the answers to the following statements on a separate sheet of paper.

1. The zig zag machine can only have a single needle and produce a locked stitch. (True or false)

2. The zig zag needle moves from right to left on the fabric. (True or false)

3. The purpose of the zig zag machine can be to sew one fabric on top of another. (True or false)

4. The zig zag machine is slower than the single needle lockstitch machine. (True or false)

## CHECK-OUT ACTIVITY

The statement below explains the activity you must complete in order to finish this module. After you go through the activity, your instructor will rate your performance using the Instructor's Final Checklist.

Your instructor will provide you with a zig zag machine, thread, snips, and fabric. Stitch a zig zag pattern according to the instructor's specifications.

Student _____

Date _____

**Instructor's Final Checklist**

Check the student's performance in the following elements of performing special operations on the zig zag machine.

Place an X in the appropriate box indicating not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, the item was impossible to complete, place an X in the "Not Applicable" box.

Performance Level: All items must receive a rating of FULLY ACCOMPLISHED (or Not Applicable). If any items are rated Not Accomplished or Partially Accomplished, the student and instructor will discuss this and decide which learning activities must be repeated.

| | Student Performance | | | |
|---|---|---|---|---|
| | Not Applicable | Not Accomplished | Partially Accomplished | Fully Accomplished |
| The student: | | | | |
| a. Adjusted the width and length for the correct zig zag stitch. | ( ) | ( ) | ( ) | ( ) |
| b. Stitched an applique on the fabric without errors. | ( ) | ( ) | ( ) | ( ) |
| c. Produced a curved turn without puckering the fabric. | ( ) | ( ) | ( ) | ( ) |